

## PATENT ABSTRACTS OF JAPAN

(11)Publication number : 07-239463

(43)Date of publication of application : 12.09.1995

(51)Int.Cl.

G02F 1/133

G09G 3/36

(21)Application number : 06-053052

(71)Applicant : SEMICONDUCTOR ENERGY LAB  
CO LTD

(22)Date of filing : 25.02.1994

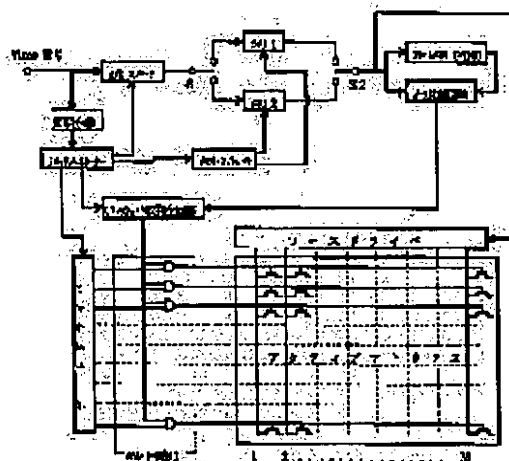
(72)Inventor : KOYAMA JUN  
TAKEMURA YASUHIKO

## (54) ACTIVE MATRIX TYPE DISPLAY DEVICE AND ITS DISPLAY METHOD

## (57)Abstract:

PURPOSE: To minimize rewriting and to reduce electric power consumption by comparing input signals formed by delaying video signals by one frame and output signals and detecting a difference therebetween.

CONSTITUTION: The analog video signals are converted by an A/D converter to digital signals which are sent to a memory. On the other hand, the period signals among the video signals are separated by a synchronizing separation circuit and are sent to a clock generator circuit. Signals to be applied to the pixels of a certain line are compared with the signals of the frame just before this line. A signal (refresh pulse) indicating the need for rewriting is emitted only when the signals vary from the frame just before this line of at least one pixels of the line. The rewriting is executed by impressing a gate pulse to the gate line of this line by using this refresh pulse and putting the gate electrodes of the transistors of the active matrix of this line into an on state. Then, the frequencies of rewriting only the required pixels and lines and rewriting the entire part are decreased.



## LEGAL STATUS

[Date of request for examination]

26.02.2001

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's  
decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

Best Available Copy